# Final Report

to

# Kalle A. Mattila

from

Puhua Dangzhi

#### **Summary**

What? 118 Tibetan village solar cookers

Where? Xiangsha Village, Galeng Township

Lamu Village, Wendu Township,

Xunhua Salar Autonomous County, Haidong Region, Qinghai Province, PR China

Who? 118 housheolds (600 Tibetans)

Cost? 10,489.30RMB (Kalle A. Mattila) + 5,900RMB (local contribution)

Dear Mr. Kalle A. Mattila,

I'm glad to report on the successful completion of the solar cooker project in Galeng and Wendu townships. We converted the 1,000 EUROS you sent to 10,489.30RMB on April 29, 2007. I contacted the leaders from the villages, and they collected 50 RMB from each household as the local contribution. Next, I contacted Mr. Rinchenkhar, who is in charge of a Canada Fund Solar energy project. Since they were buying a large number of solar cookers, I was able to buy solar cookers for only 138RMB each. I was able to buy 118 solar cookers using the local contribution with your funds.

About 600 people are benefiting directly from this project. It has especially helped local women and girls by reducing time spent collecting fuel and working in smoky kitchens. Time saved by the women and girls can be spent collecting medicinal herbs and wild plants to sell to increase household income. Old people who are unable to chop wood and make a fire do not need to worry about cooking while the younger ones are out earning cash income. With the solar cooker it is easy for them to boil water for tea and heat their food.

There is also a very substantial benefit to the environment. A similar project in nearby Guide County suggests that when a single solar cooker is properly utilized, four thousand kilograms of organic matter are *not* burned in one year.

Speaking for all the project beneficiaries, I extend my sincere appreciation for your contribution.

Sincerely, Puhua Dangzhi

#### **Background**

#### Lamu Village

Lamu Village is located four kilometers south of the administrative center of Wendu Tibetan Township. The population of Wendu Township is about 7,900, all of whom are Tibetan. Lamu Village has 74 households and 288 people. Villagers live in adobe-wood rooms constructed around a central, rectangular courtyard.

The village has 370 *mu* of irrigated land. The main crop is wheat, which is mostly consumed by the households (bread, noodles). Other crops include barley, rape, potatoes, and beans. Most of the agricultural work is done by the women. Plowing is done with cattle and mules, weeding and harvesting are done by hand.

In addition to farming, each household has livestock. In total, the community has 41 cattle, 80 sheep, 23 mules, and 28 donkeys. Three households each day take turns herding the livestock to and on nearby mountains. The annual cash income is approximately145 *rmb*/person, mostly earned by (young men) working outside the area collecting caterpillar fungus and doing road work.

#### Xiangsha Village

Xiangsha Village is located 57 km southwest of Xunhua County Town in a very dry area surrounded by low mountains. The village has 93 households with 446 residents and 200 livestock. It has 325 *mu* of irrigated land and 176 *mu* of dry land. Years of drought have caused poor crop production which, together with poor road conditions, have limited the improvement of living conditions and village development in general. The annual income is 110 *rmb*/person, mostly earned by (young men) working outside the area collecting caterpillar fungus and doing road work. There is a forest nearby from which people used to collect fuel and cut trees to sell to Muslim businessman, but this was strictly prohibited by the government three years ago.

## Recipients

序号	村名	户名	家庭人口	配发月	日期日	收费	收货人	颁发人	项目 来源
1	3.4165.	是不是有	引 7人			50 元		东知	外人援资
2	3:0765 -	प्रशिक्ष	5人			50元	19. M	东知	外人援资
3	२०१वे थ	८४४.सेव	2人			50 元		东知	外人援资
4	20,500	व्यक्ष्य	3人			50 元	夏夏正然	东知	外人援资
5	सम्बद्धान	de: 40.2.31	3人			50 元	45 Y	东知	外人援资
6	からがらって	3334	5人			50 元	BUS	东知	外人援资
7	かんかんかん	विश्वाक्ष	2人			50 元	84038	东知	外人援资
8	A.R.ZEDIN	क्राहण्ये हिर्म	41			50 元	77	东知	外人援资
9	PIL'SEDIA	3/2/21	41			50元	S. S.	东知	外人援资
10	AJSSED!A	A.T	6人			50元	274	东知	外人援资
11	至多2十二	> N. ASIS, J. VA				50元	M. Jakin K	东知	外人援资
12	MASKINA	天手	YX			50元	35 8	东知	外人援资
13	CHYSEP'N	到刘红	4人			50 元	烈的战	东知	外人援资
116	र्शक्तर, जम्ब	विर्वे केंग्य	华人			50 元	PAPA KB	东知	外人援资
15	41432.11.10	图:34: 至夏	3人			50元	B. Jes	东知	外人援资
16	上がたら	अग्रिश द्रम्य	61			50元。		东知	外人援资
17	का.ह.	多多次	3人	5	31	50元	59'07	东知	外人援资
18	31/2	外はつ	41	5	31	50元	हर्ग	东知	外人援资
19	到,马	क्ष्या धर	41	5	31	50元	A 25	东知	外人援资
20	31/3	स्वायाद्यायाव	3人	5	31	50 元	A Za ush	东知	外人援资
21	31.5	35.38	4人			50元	STOR	东知	外人援资
22	34.5	からない人!	人			50元	Jalan	东知	外人援资
23	31.5	MARIAIT	4人			50元	Margha	<b>冰</b> 知	外人援资
24	क्रा.ब्रु	が、気を上	3 人			50 元	97 4 6 7	、东知	外人援资
25	31.5	यर्वात.र्ग.क्र	5 人			50元	200 000	东知	外人援资
26	31.0	さらからって	41			50元	अले के प्रारं	东知	外人援资
27	31.5	7 3 8 A	41			50 元	公司	东知	外人援资
28	1		बुव 🗡			50元	1 8 3 1 C	<b>小</b> 东知	外人援资
29	खेरासर्थे	笑, 202.	少人人			50元	354	东知	外人援资
30	दात्रज्ञर,ग्रीव	张小郎	5人			50元	80 NO	东知	外人援资
31	以出	सूव,स्र	人			•50元		东知	外人援资
32	श्रुग र्कट	শূত,বা	人			.50 元	V	东知	外人援资
33	अली	रकेद्रवर देन व				•50 元	KOKOKA	<b>以</b> 东知	外人援资

#### 文都多自草毛行政村太阳灶分配情况表

序号	村名	户名	家庭人口	配发月	日期日	收费	收货人	颁发人	项目 来源
34	A.M.ZEP.M.	DOUBLE LA PRINCE	1人	ANH.	153	50 元	4414/59	东知	外人援资
35	できないを	यगार्थ	"3.人			-50元		东知	外人援资
36	M'435. 17.A	444×179'4	人	4444	43	50 元	ACC SOLE	东知	外人援资
37	ग्रंभ	は、なって、そ、多	4人			50 元	33	东知	外人援资
38	N'ÀI	突水兵事	61			50元	第次	东知	外人援资
39	યર્સ	美美多兴	4人			50 元	RUSS	东知	外人援资
40	4:3	£, £, £9,010	4人			50 元	\$' \$ SA WE	东知	外人援资
41	मर्थ	राक्षं रहे विका	5人			50 元	SKIN ST	东知	外人援资
42	यार्थ	ENE REKE	13人	5	3/	50 元	明的可知心是	东知	外人援资
43	यार्ट्स	कर कर किया	6人			50元	3. 41.9	东知	外人援资
44	wăi	4300元	4人			50 元	78	东知	外人援资
45	424	553	5人			50元	完的多本	东知	外人援资
46	यर्थ	गुन्यम्बद्ध	3人			50 元 🦠	- 23 - D'	东知	外人援资
47	यध्र	2835	1人			50元	200	东知	外人援资
48	यर्भ	442. A. C. C. C.	361			50 元	MARCH WAY	东知	外人援资
		113	人			50元		东知	外人援资

	The Contract		THE PERSON NAMED IN							
庁	村	名	户名	家庭	配发日	月期	收	收货人	颁发人	项目
号	7			人口	月	日	费			来源
01	香	沙	麻尼房	1 人	5	26	50 元	麻尼房	旦斗、斗改杰	
02	2 香:	沙	华落加	5人	5	26	50元	华落加	旦斗、斗改杰	
03	香;	沙	才旦卓玛	4人	5	26	50 元	才旦卓玛	旦斗、斗改杰	
04	4 香;	沙	下午才让	6人	5	26	50元	下午才让	旦斗、斗改杰	
05	香	沙	旦正才让	4人	5	26	50 元	旦正才让	旦斗、斗改杰	
06	香	沙	下午杰	4人	5	26	50 元	下午杰	旦斗、斗改杰	
07	香	沙	才旦	5人	5	26	50元	才旦	旦斗、斗改杰	
08	香	少	尕-日	5人	5	26	50元	尕日	旦斗、斗改杰	
09	香油	少	娘毛先	4人	5	26	50元	娘毛先	旦斗、斗改杰	
10	香》	少	旦普	6人	5	26	50元	旦普	旦斗、斗改杰	
11	香》	少	才让扎西	4人	5	26	50元	才让扎西	旦斗、斗改杰	
12	香》	少	加在	5人	5	26	50元	加在	旦斗、斗改杰	
13	香剂	少	周 加	5人	5	26	50元	周加	旦斗、斗改杰	
14	香泡	少上	普周	4人	5	26	50元	普周	旦斗、斗改杰	
15	香泡	少	旦告	5人	5	26	50元	且 告	旦斗、斗改杰	
16	香泡	少	公保杰	3人	5	26	50元	公保杰	旦斗、斗改杰	
17	香泡	少直	改 先	4人	5	26	50元	改先	旦斗、斗改杰	
18	香泡	J.	下午太	5人	5	26	50元	下午太	旦斗、斗改杰	
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序	村名	户名	家庭	配发日	期	收	收货人	颁发人	项目
号			人口	月	日	费	2000		来源
19	香沙	看本	6人	5	26	50 元	看本	旦斗、斗改杰	
20	香沙	卓玛	3人	5	26	50元	卓玛	旦斗、斗改杰	
21	香沙	尕藏	4人	5	26	50 元	尕 藏	旦斗、斗改杰	
22	香沙	拉送	3人	5	26	50元	拉送	旦斗、斗改杰	
23	香沙	然交	5人	5	26	50元	然交	旦斗、斗改杰	
24	香沙	斗尕杰	6人	5	26	50元	斗尕杰	旦斗、斗改杰	
25	香沙	傲见	3人	5	26	50 元	傲见	旦斗、斗改杰	
26	香沙	拉龙太	4人	5	26	50元	拉龙太	旦斗、斗改杰	
27	香沙	才让加	3人	5	26	50元	才让加	旦斗、斗改杰	
28	香沙	高乃	5人	5	26	50元	高乃	旦斗、斗改杰	
29	香沙	夏吾太	4人	5	26	50元	夏吾太	旦斗、斗改杰	
30	香沙	九美	6人	5	26	50元	九美	旦斗、斗改杰	
31	香沙	拉加太	3人	5	26	50元	拉加太	旦斗、斗改杰	
32	香沙	公巴太	4人	5	26	50元	公巴太	旦斗、斗改杰	
33	香沙	交巴杰	3人	5	26	50元	交巴杰	旦斗、斗改杰	
34	香沙	吉合先	6人	5	26	50元	吉合先	旦斗、斗改杰	
35	香沙	道高日	3人	5	26	50元	道高日	旦斗、斗改杰	
36	香沙	当增	4人	5	26	50元	当增	旦斗、斗改杰	

序	村名	户名	家庭	配发日期		收	收货人	颁发人
号			人口	月	日	费		
37	香沙	下午	5人	5	26	50 元	下午	旦斗、斗改杰
38	香沙	才让加	4人	5	26	50 元	才让加	旦斗、斗改杰
39	香沙	王周太	5人	5	26	50元	王周太	旦斗、斗改杰
40	香沙	巴告	6人	5	26	50元	巴告	旦斗、斗改杰
41	宗占	先 巴	4人	5	26	50 元	先巴	旦斗、斗改杰
42	宗占	才普	5人	5	26	50元	才普	旦斗、斗改杰
43	宗占	敖高	5人	5	26	50元	敖高	旦斗、斗改杰
44	宗占	才旦	4人	5	26	50 元	才旦	旦斗、斗改杰
45	宗占	下午加	5人	5	26	50元	下午加	旦斗、斗改杰
46	宗占	下才让	6人	5	26	50元	下才让	旦斗、斗改杰
47	宗占	东 巴	5人	5	26	50 元	东 巴	旦斗、斗改杰
48	宗占	美给	4人	5	26	50元	美给	旦斗、斗改杰
49	宗占	斗 拉	4人	5	26	50元	斗 拉	旦斗、斗改杰
50	宗占	多多	5人	5	26	50 元	多多	旦斗、斗改杰
51	宗占	赞浪	6人	5	26	50 元	赞 浪	旦斗、斗改杰
52	宗占	完代草	4人	5	26	50 元	完代草	旦斗、斗改杰
53	宗占	桑日	5人	5	26	50 元	桑日	旦斗、斗改杰
54	宗占	下午杰	6人	5	26	50 元	下午杰	旦斗、斗改杰

序	村名	户名	家庭	配发日期		收	收货人	颁发人
号			人口	月	日	费		
55	宗占	多杰	5人	5	26	50 元	多杰	旦斗、斗改杰
56	宗占	扎 西	4人	5	26	50元	扎西	旦斗、斗改杰
57	宗占	尼玛	6人	5	26	50元	尼玛	旦斗、斗改杰
58	宗占	才让加	3人	5	26	50 元	才让加	旦斗、斗改杰
59	宗占	吉太加	4人	5	26	50元	吉太加	旦斗、斗改杰
60	宗占	才让太	5人	5	26	50元	才让太	旦斗、斗改杰
61	宗占	多杰本	5人	5	26	50元	多杰本	旦斗、斗改杰
62	宗占	桑杰本	4人	5	26	50 元	桑杰本	旦斗、斗改杰
63	宗占	斗 太	4人	5	26	50元	斗 太	旦斗、斗改杰
64	宗占	旦配	6人	5	26	50元	旦配	旦斗、斗改杰
65	宗占	拉高	5人	5	26	50 元	拉高	旦斗、斗改杰
66	宗占	桑吉满	5人	5	26	50 元	桑吉满、	旦斗、斗改杰
67	宗占	索南本	4人	5	26 ,	50元	索南本	旦斗、斗改杰
68	宗占	多杰杰	5人	5	26	50 元	多杰杰	旦斗、斗改杰
69	宗占	索白	5人	5	26	50元	索白	旦斗、斗改杰
70	宗占	下 拉	4人	5	26	50 元	下拉	旦斗、斗改杰

# **Letter of Appreciation**

	市范大学民族》		
科目:	第 次作业第	页 成绩:	
系	年级 学号	姓名:	年 月 日
	यमाराद्वीयात्राव	M	
विभाग दर उ	वुदाहेत्र यद्वाया-	नव्रिक्षायर	श्चिम वद्या
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科目:		第	次作业第	页	成绩:			
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#### **Translation**

To the compassionate and merciful donor

Firstly, we hope you are in good health and successful in your career.

We are reminded of your generosity every time the solar cookers flicker at the gate of a household. Your contribution had benefited us enormously: 1) Solar cookers have reduced women's work by one-third. 2) They also reduced the usage of fuel such as wheat stalks and bushes thereby protecting the environment and keeping our houses cleaner. 3) Smoke in the houses is reduced since women do not need to make fires as much as before. 4) The solar cooker boils water fast, making hot water available whenever it is wanted. 5) They reduce family expenses. Therefore, we all will never forget your support.

Finally, we wish you a happy and successful life.

Lhalung (village leader) June 25, 2007

#### Receipt



## **Photos**



Many fewer of such bushes will be collected by women and then burnt.



The solar cooker truck at the village.



Solar cookers were distributed according to a vote managed by the village leader.



Xiucang Primary School received a solar cooker for use by teachers and students.



Xiawu Cairang and three colleagues carry the solar cooker to Yari Primary School.



67 year old Mrs. Omo mchog boils water.



Dgon mchog melts butter for butter lamps.



Mrs. Mchogskyid cleans her solar cooker.

#### **Interviews**



Mr. Dbangphyug is 72 years old and his wife is 78. He has three sons and used to live with his youngest son, a middle school teacher. This son abandoned his parents, his wife, and two sons, to marry another woman. Now, fuel is huge problem for Mr. Dbangphyug and his wife. In fall, his wife collects leaves that they use for making fire and sometimes villagers contribute some fuel for them. Thus their life is full of worry and unhappiness. But now that they have a solar cooker and he said, "It is like our soul. It is very useful tool, but I could never afford to buy one. I sometimes went to the neighbor with a kettle to boil water, but it was hard because of my aching legs and back. At present, we are doing most of the cooking on the solar cooker, which has reduced our worries about fuel. I can do my chanting and my wife doesn't have to collect leaves. I am very grateful to the donor.



Mrs. 'brug mo is 32 years old and there are four people in her family, her mother-in-law, her husband, and two girls who attend primary school. Her family has 4.2 mu of farmland, and the crop income is 700/mu/year. The main fuel for the family is yak dung and bushes that she used to carry on her back 2 hours from the forest each day. But now collecting in the forest is strictly prohibited. The villagers had to promise they would only buy coal for occasions like an 80 year old birthday party or a wedding. She tells of the following difficulties that she had to face before the solar cooker project: "My house is very small and the kitchen is even smaller. Every time I make a fire, the smoke fills the kitchen, bringing tears to my eyes and my family members had to leave the room while I cooked. I felt embarrassed when we had a guest since the local people think that it means 'I don't even know how to make a fire'. My mother-in-law did this for many years and now her eyesight is very poor, which I discovered while we were weeding together in the field. She sometimes roots up wheat instead of weeds. So cooking is extremely hard and you can see how bad my house looks from the smoke. The solar cooker greatly reduced the amount of time I spend in the smoky kitchen--almost no time in the summer. I can use the solar cooker from 9:00 AM to 6:00 PM and it only takes 20 minutes for a kettle of water to boil. For breakfast and dinner I use the hot water that was stored in thermoses the day before, making meal preparation much faster. My mother-in-law and I used to drink cold water at lunch after weeding in the field on hot days while we rested in the shade. Drinking cold water is bad for the stomach, especially for an old woman like my mother-in-law, but now we can rest in the shade of the courtyard and drink hot water or tea. So I will never forget this solar cooker project and I greatly thank the donor."



Mrs. 'brug mo's kitchen.



Mrs. Mrs. 'brug mo's ceiling, blackened by cooking fires.



Mrs. Tshe ring mtsho is 62 years old. There are six people in her family--her husband, her son, her daughter-in-law, her two grandchildren, and her. Her grandchildren are students, and the others are farmers. She said, "The solar cooker is very useful or us. Because of them, my daughter-in-law doesn't have to fetch as much wood where she is at risk of been caught by forest-keepers who are increasingly strict. Now I don't have to ask my granddaughter to collect yak dung when she comes home from school. I can adjust the solar cooker easily which is very convenient. I don't have to worry about hot water to drink while the younger ones are out working in the field. They can work in the field all day without worrying about me and my husband having hot water to drink." Her husband added, "Everyone searches for convenience and the solar cooker provides it, but it is not like buying a tractor or other machine since it doesn't need fuel. Once you have one, you get the benefit without additional cost. Since deforestation was getting more and more serious, women were starting to cut plants and dig roots close to the village, damaging our surroundings. The solar cooker project has helped improve our environment."